



How to clean the HP Photosmart Plus B210a Printhead (Gentle)

Clearing a clogged printhead clog in a HP Photosmart Plus B210a.

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INTRODUCTION

If your HP B210a has a clogged printhead, this guide **can potentially** fix the problem and recover your printer.

There are no guarantees the printer will work again, but this is one of those things that can be used to try and recover a printer you have given up on, for example. As such, it should not be assumed there is a 100% repair success rate. The success rate is very good, but it may not work (and may even damage your printer or printhead). In some cases, the damage is likely going to be beyond repair.

Guide Notes

- This guide is primarily made for the HP B210a (and similar 4 color models), but this guide can be used on any HP printer that uses 564 ink tanks.
- **Warning: Later models using the HP 564 ink system likely require partial disassembly.**
- If I have not tested the model you have, I cannot guarantee the printhead removal procedure to save the calibration will work for you. It's very likely it will, but if I do not know with 100% certainty unless I have personally been successful.

Printhead Bypass

Validated

- Photosmart C6380
- Photosmart Premium C309g
- Photosmart Plus B209a
- Photosmart Plus B210a

Known permanent printhead models

- Photosmart 6520 (Permanent printhead; MAY REQUIRE SETUP CARTRIDGES TO RECONFIGURE THE PRINTER)



PARTS:

- [Distilled Water](#) (1)
- [Small bowl](#) (1)
- [Shop Towels](#) (1)
- [Source of heat](#) (1)

Can be anything that produces heat, such as a coffee maker

- [High Content Rubbing Alcohol](#) (1)
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Step 1 — Gather your supplies



- You will need the following supplies:
- Paper towels (Keep your workspace clean along with cleaning and drying)
- Hot water (Distilled is recommended)
- Plastic bag (Ink cartridge storage)
- **Optional:** Gloves and 91% alcohol (Should only be used for stubborn clogs)
- **Optional:** Extra ink cartridges (Just in case any cartridges need to be replaced)

Step 2 — Getting hot water



⚠ Using water from a coffee machine is not recommended if it can be avoided. The water is very likely to be dirty, which can cause problems. Boiling water is much better because this is typically very clean.

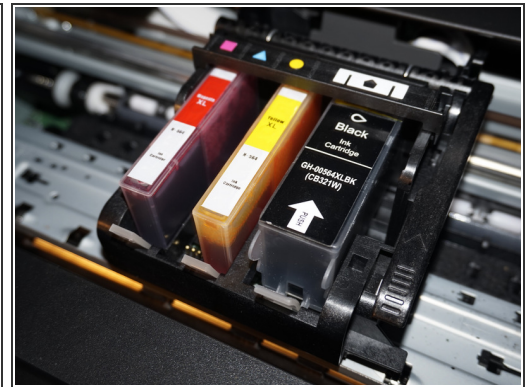
- ★ If a source like a coffee maker is used to get hot water, a filter should be installed to clean the water as much as possible before use. On Keurig coffee makers, the easiest way to do this is to remove the coffee pod holder. While it doesn't need to be 100% clean, it should be as clean as you can get it.
- Go to a source where you can get hot water, and heat the water up. Using hot water helps break the ink down faster and can improve your chance of success.

Step 3 — Set a baseline



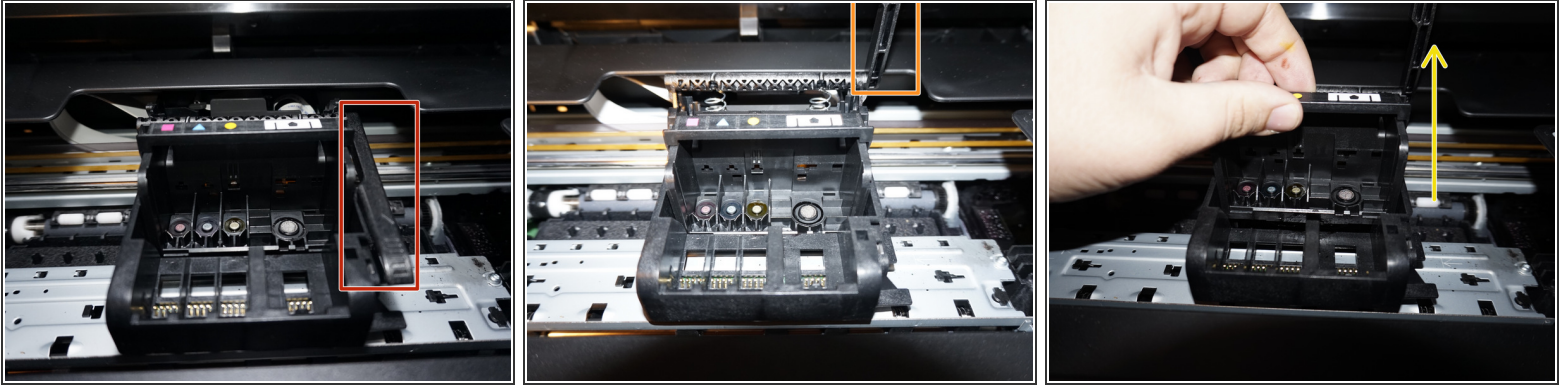
- Print a pre cleaning test image to use as a baseline. It is best to use something like the following: [NTSC color bars](#) or [SMPTE color bars](#)

Step 4 — Remove the ink tanks



- ① If you have the original shipping caps for your cartridges, you can use these in place of a plastic bag.
- Remove the ink tanks from the printer. Put these in a plastic bag to prevent the ink from drying out. Stop here and follow the next step word for word when it is time to remove the printhead.

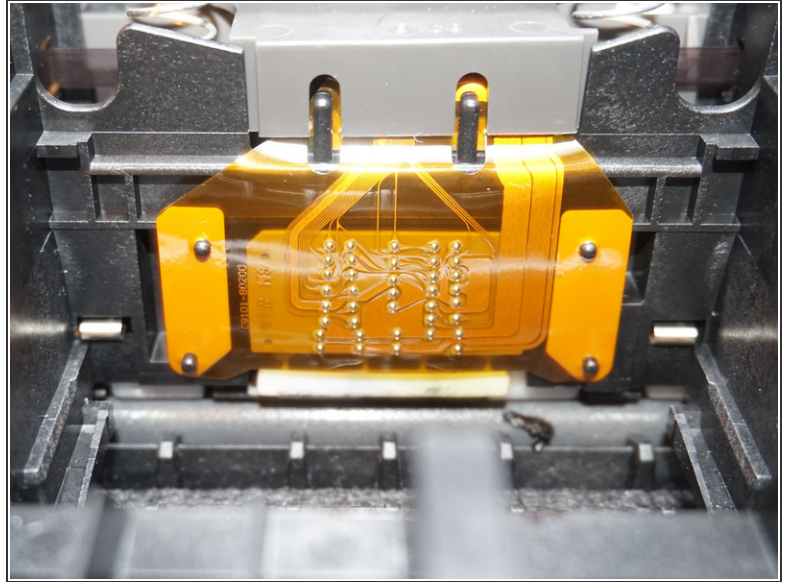
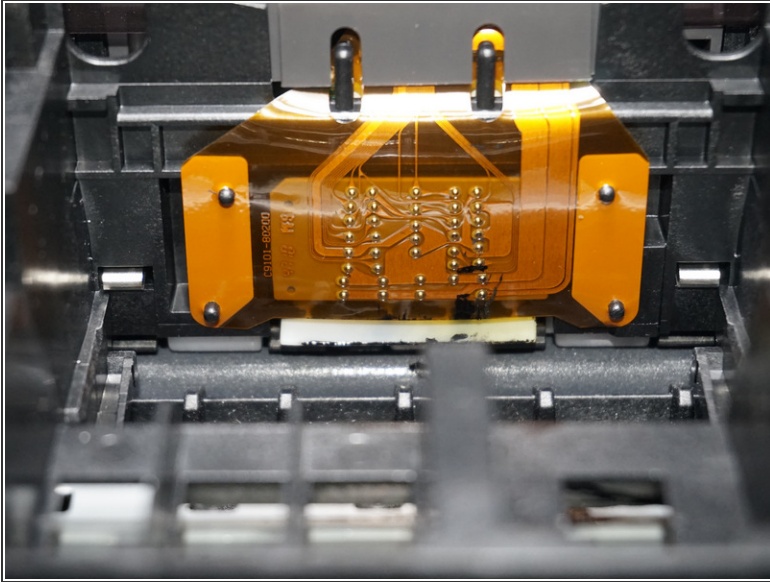
Step 5 — Preserving your printhead calibration



 **Unplug the printer before doing ANYTHING. If you do not do this you risk losing the calibration data.**

- If you need clearer instructions, follow [this guide](#) for additional instructions.
- With the ink cartridges removed from the printer, it is time to remove the printhead. **Important: Before removing the printhead, VERIFY the printer is unplugged before removing anything.**
- With the printer being unplugged and verified twice, remove the printhead. Lift the locking latch on the printhead carrier up. Once this is unlocked, the printhead can be removed.
- Once the printhead is unlocked, remove the printhead. Remove the printhead by grabbing it as shown. **Important: DO NOT touch the contacts or nozzles on the printhead. This can damage the printhead.**
- Leave the scanner lid open to avoid confusion about if a printhead is installed.





Step 6 — Clean the contacts in the printer



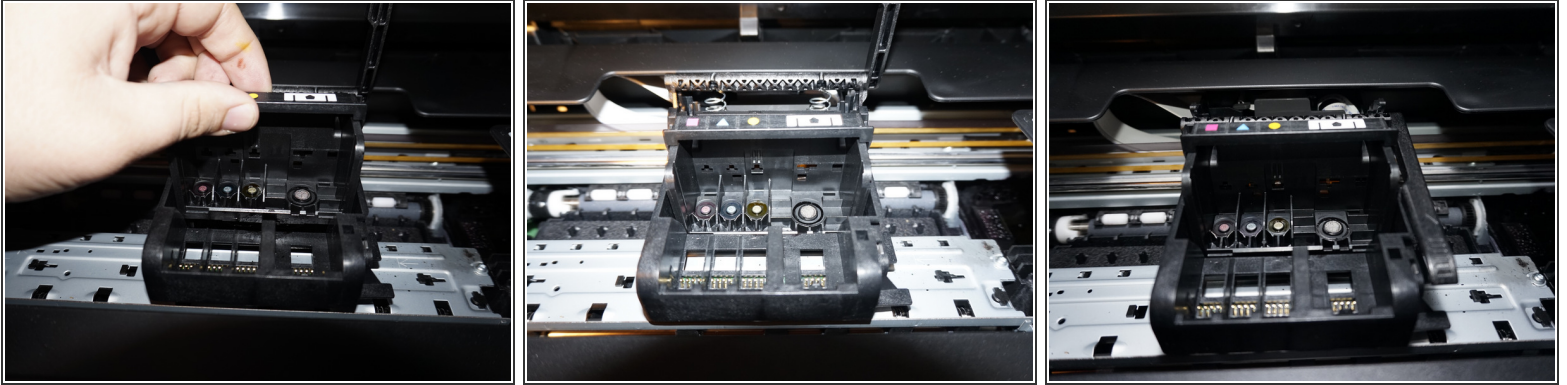
- ❗ If this area is not cleaned, this can cause **Ink System Failure** errors if there is a lot of ink here. This does not jeopardize the calibration data if the printhead is making good electrical contact, but the printer will crash frequently if it builds up/
- To avoid **Ink System Failure** crashes, inspect the electrical contacts in the printer. If you find ink, clean the contacts in the printer with an alcohol wipe or a napkin covered in alcohol. Do this **BEFORE** reinstalling the printhead.

Step 7 — Clean the printhead



-  **Alcohol should only be used as a last resort.** Alcohol can damage the printhead if you are not careful and left to sit for an extended period of time. To avoid this, purge the printhead with clean water **THREE TIMES**.
-  As the ink in the printhead is purged, the water will get lighter with every water change. If this takes a while, you have a heavily clogged printer. **Tip: If your printer has a stubborn clog, an ultrasonic cleaner or small paintbrush can help with these clogs.**
-  **Recommended circulation times: With alcohol: 5-10 minutes. Without alcohol: 15 minutes.**
-  Putting the printhead in front of a fan can dramatically reduce the drying time as this will speed up the process.
- Pour some hot water into a bowl and let the printhead sit. Occasionally change the water, since the water gets dirty very quickly. Once the water is reasonably clear and the water is no longer dark black, the printhead is clean.
- Remove the printhead and wipe down the electrical contacts and nozzles now. This will prevent most printhead contact problems that cause the printer to show **Printhead problem**, since many of these problems are caused by residual water on the electrical contacts.
- Let the printhead dry for a few hours to make sure there is no residual water (which can cause problems or damage the printer). Once the printhead is dry, reinstall it in the printer.

Step 8 — Reinstall the printhead and ink



⚠ DO NOT plug the printer back in until the printhead and ink cartridges are replaced. If you do not install the printhead before plugging the printer in, you will erase the calibration data.




⚠ Wait until the printhead is fully dry before reinstallation. A good general rule is to wait 4-6 hours unless you use other means to dry the printhead faster.

✦ If your printer says **Printhead Problem**, your calibration data is erased. The most common reason is incorrect printhead installation. Reinitialization of these printers uses a lot of ink (~1/2 of the ink in Retail cartridges), so a new set of cartridges is recommended. **Note: While used ink can be used, these printers frequently complain.**

- Once you have let the printhead sit long enough to fully dry, reinstall the printhead. To do this, reverse the procedure used to remove it. Once the printhead is reinstalled, put the ink in next.
- Once the printhead is installed, put the ink cartridges in the printer. Once this is done, plug the printer in. **Note:** Your printer run a **Printhead Preparation** purge, which cannot be stopped.

Step 9 — Test the printer



-  **Ink levels are very important for this test. If any ink cartridge(s) currently installed are low, you should replace these cartridges now to make sure these results are accurate.**
-  If you have a 5 color printer (K/PK/C/M/Y), this test should be done in the photo printing mode to test Photo Black. Photo Black is not used in any other mode.
-  If you have any print quality problems, run a printhead cleaning to get a sufficient amount of ink back in the system. **Tip: If you have to do this more than two times, your printhead may be damaged. These are usually ~\$80, so it's typically cheaper to buy a new printer.**
- After replacing the printhead, run a print test to see if the printer works correctly. Use the same settings as you used for the reference image and compare the before and after results.

If your printer is working as well as it came out from the day you got it, you salvaged this printer completely. Anything less than perfect does not mean it's garbage, however. It just means the head has some permanent clogging, but it's good enough to put in service for basic printing.

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